

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Original) A system of automated sorter operation for held or banked wafer lots, comprising:

a storage device capable of storing a plurality of process records, each process record corresponding to a wafer lot and comprising an identity and a current status indicating if the wafer lot is on hold, in a production or in a non-production bank; and

a sorting module receiving a wafer lot identity, acquiring the current status corresponding to the wafer lot identity from the process record, issuing a first status setting instruction corresponding to the current status to a manufacturing execution system (MES) to release the wafer lot, issuing a flow instruction with sorting recipes directing the MES to perform a sorter operation, and issuing a second status setting instruction corresponding to the current status to the MES to hold or bank the wafer lot.

2. (Original) The system of claim 1 wherein the sorting module stores the current status into a temporary file or table, issues the second status setting instruction corresponding to the current status in the temporary file or table, and removes the temporary file or table after the sorter operation.

3. (Original) The system of claim 1 wherein the wafer lot identity is input by an operator or a computer system.

4. (Original) The system of claim 1 wherein the MES releases or holds/banks the wafer lot based on the first status setting instruction or the second status setting instruction respectively.

5. (Original) The system of claim 1 further comprising a wafer sorter performing sorter operations according to sorting recipes.

6. (Original) The system of claim 5 further comprising a transport system transporting the wafer lot to the wafer sorter.

7. (Original) The system of claim 6 wherein the MES applies a tool dispatch rule to determine the wafer sorter starts the transport system and the wafer sorter to perform the sorter operation using automated instructions.

8. The system of claim 1 wherein the sorter operation is slot mapping, carrier exchange, wafer lot combination or splits.

9-24. (Canceled)